

METHOD FOR MINIMIZING ZERO CURRENT SHIFT
IN A FLAT PANEL DISPLAY

5 ABSTRACT

10 In a flat-panel display structure having a spacer with laterally segmented face electrodes, one embodiment of the present invention defines the length of the laterally segmented face electrode sections to minimize zero current shift variation in electron trajectories. Advantageously, the present embodiment of the invention prevents image quality degradation. In one embodiment, values for variation in the uniformity of and dicing tolerance are combined to calculate a design optimum for the length of laterally segmented face electrodes. Zero current shift variation from fluctuations in wall resistance falls off with the length of laterally segmented face electrodes. Zero current shift due to first order angular alignment during dicing varies linearly with the dashed electrode length.

15 In one embodiment of the present invention, an optimal value is calculated by combining these effects to minimize zero current shift. Advantageously, in one embodiment, the electrode segments are individually testable.